

NEW GENERA AND SPECIES
OF TERMITOPHILOUS COLEOPTERA
FROM NORTHERN SOUTH AMERICA*

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(Figs. 28-40)

Mr. Alfred Emerson has had the kindness to loan me for study a most remarkable series of beetles that he collected in termite nests, chiefly at the Tropical Research Station at the New York Zoological Society at Kartabo, British Guiana, but containing also several species from Trinidad.

The present paper includes merely descriptions of some of the forms. It is intended at a later date, to publish a more extended account of these, together with descriptions and notes of others.

Holotypes of the new species have been deposited in the U. S. National Museum collection.

The accompanying habitus drawings have been made by Mr. Robert E. Snodgrass, Mr. Harry B. Bradford and Miss Julia Ellen Edmonson.

Family—STAPHYLINIDAE

Subfamily—ALEOCHARINAE

Tribe—COROTOCINI

Spirachtha mirabilis sp. nov.

(Fig. 28)

Female.—Length 2-2.50 mm. Membranous portions white, in some of the larger specimens irregularly infuscated; chitin on abdomen and tarsi pale brown, on head and thorax darker brown, antennae and legs black. Feebly shining.

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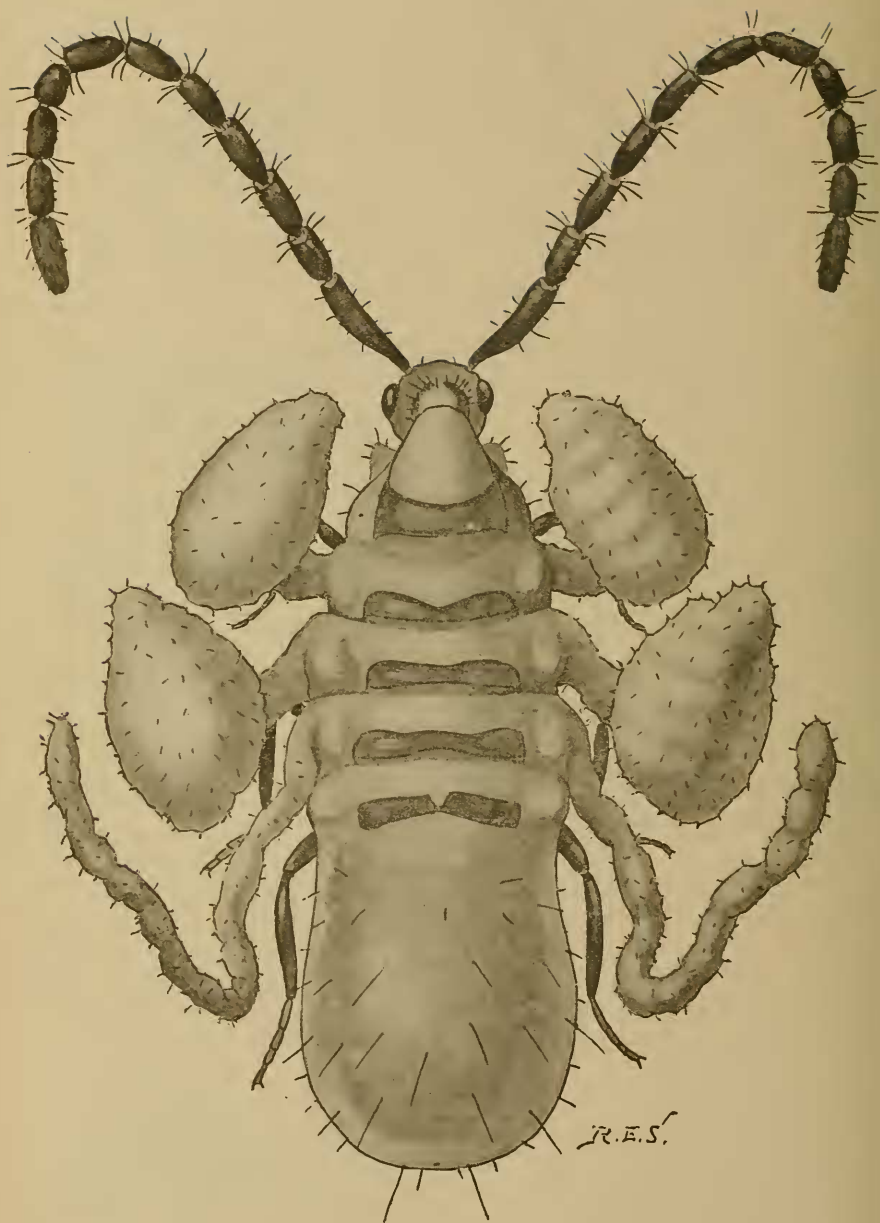


FIG. 28. *SPIRACHTHA MIRABILIS* SP. NOV.

Basal abdominal segment, the central surface of thorax and the appendages with erect hairs, which are pale yellow in color and longer on the abdomen and more sparse and black elsewhere.

Head about as long as broad, barely broader in front than behind, with a narrow median impressed submembranous area for nearly the length of front; sides posterior to eyes moderately convex; anterior border of front truncate; clypeus transverse, broadly concave at anterior border. Eyes one-third as long as sides of head, situated at front of sides. First antennal joint nearly as long as head, slender at base then gradually thickened and feebly sinuate to apex; second joint longer than broad and distinctly longer than the third; third joint twice as long as broad, joints 4-10 elongate, each a little shorter than the one preceding; terminal joint a little thicker than the others, and one and two-thirds times as long as the penultimate. Pronotum transverse, surface evenly and feebly convex, sides rounded, anterior and posterior borders broadly arcuate; separated from head by a membranous collar and with a smaller membranous pad visible at each side of the posterior border. Scutellum large, broadly triangular. Elytra together broader than long, separated for their entire length, posterior angles narrowly rounded, posterior borders nearly straight and strongly oblique. Abdomen nearly covering the remainder of body, second and third segments strongly inflated, rounded at apex; segments 3-7 with narrow transverse bands of chitin above; segments 4, 5, 6 with massive, constricted exudatorial developments, those on segments 5-6 terminating as large irregular masses, tuberculate and each tubercle bearing a stiff hair; on the fourth segment long, irregularly cylindrical, sharply bent at middle and with numerous constrictions, not as distinctly tuberculate as the other two pair. Legs short and rather stout.

Host.—*Nasutitermes* (*Constrictotermes*) *cavifrons* (Holmgren).

Type-locality.—Kartabo, British Guiana.

Differs from *S. eurymedusa* Schiödte in its longer head, the first antennal joint is less thickened and less arcuate, the pro-

notum lacks the broad, posterior membranous band, the elytra are separated for their entire length and their posterior borders are much more strongly oblique. The large masses at the ends of the two posterior pairs of exudatoria are characteristic. In *eurymedusa* they are slender and similar in form to the other pair and the posterior pair has one strong constriction instead of many feeble ones. The amount of membranous structure on the pronotum is variable in *mirabilis* and probably also in *eurymedusa*.

Spirachtha schiödtei sp. nov.

Female.—Length 1.50 mm.—Membranous portions white; chitin on abdomen pale brown, on head, thorax and appendages darker. Moderately shining, finely coriaceous.

Erect, stiff yellowish hairs scattered on abdomen (except on chitinous plates). Fine, black, semi-recumbent hairs on head, thorax and appendages.

Head a little broader than long; median membranous area broader than in *mirabilis*; front broadly impressed. Antennae stout, first joint nearly as long as the head, suddenly thickened near base and only slightly and very gradually enlarged toward tip, two and one-half times as long as the second joint; second joint as long as the third, less than twice as long as broad, narrow at base; joints 4-10 subequal, a little longer than broad; terminal joint one and two-thirds times as long as the penultimate. Pronotum broader than long, widest in front of middle. Elytra together broader than long, posterior corners projecting and narrowly rounded. Abdomen recurved as in *eurymedusa* and *mirabilis* but (in the majority of the specimens) extending only to anterior third of pronotum; exudatoria well developed, the anterior two pair constricted at middle into two portions; subequal in length, the apical part somewhat pear-shaped, not tuberculate but beset with bristles similar to those on second and third abdominal segments; posterior pair of exudatoria similar but with three "joints," the middle of which is small and the terminal a little larger than on the others. Legs a little more slender than in *mirabilis*.

Host.—*Nasutitermes* (*Constrictotermes*) *cavifrons* (Holmgren).

Type-locality.—Kartabo, British Guiana.

Other locality.—Kalacoon, British Guiana.

This is very distinct from the preceding species in its much smaller size, more robust antennae, broader head with more strongly impressed front and in the radically different structure of the abdominal exudatoria.

One specimen in a vial with a series of the females represents a phase of the male of this species. The structure of the head and thorax is similar to that of the female, except the median membranous band on the head is much narrower. The elytra are separated for their entire length (in the female of *schiodtei* they are connate as in *eurymedusa*) and less narrowed at the tips. The abdomen is small, entirely chitinized, compressed dorso-ventrally and margined at sides, quite a typical Staphylinid abdomen. The antennae of the specimen are broken but the basal joint is proportionately shorter than in the other specimens.

Among the series with inflated abdomens there is some variation in the length of the antennal joints and in individuals cleared in xylol I have noted differences in the internal chitinous structures in the terminal abdominal segments, which indicates that both sexes are present. So the one that I take for the male may be a phase in the imaginal development of the female. In fully developed specimens it is probable that both sexes are very similar in habitus.

It appears certain that we have two species of *Spirachtha* living in the same locality with the same host termite, another character similar to that of *Corotoca*, which Schiödte records in the same manner.

Corotoca guyanae sp. nov.

Female.—Length (in alcohol, with abdomen recurved) 2.60 mm.

Chitinous portion dark brown, except on median abdominal segments, where it is higher; lateral part of gaster yellow. Shining and every finely coriaceous.

Erect hairs fine on head, thorax and elytra, course on abdomen and shorter on appendages; one pair on vertex, numerous on ventral surface of head; scattered and sparse on thorax and elytra; abundant on gaster and arranged in three rows on each dorsal band, more scattered on the sides.

Head, excluding eyes, a little longer than broad, front shallowly impressed and, between eyes, with a v-shaped suture and a median vertical impression extending about one-third the length of head. Clypeus transverse, broadly concave at anterior border. Eyes large and convex, occupying two-thirds the sides of head. First antennal joint elongate, clavate, concave at outer border, about two-thirds as long as head; second joint half as long as the third, which is three times as long as broad, remaining joints gradually shorter, the penultimate about twice as long as broad; apical joint slender, shorter than the two preceding joints together. Pronotum a little broader than long, separated from head by a membranous collar, anterior border broadly concave; sides very broadly and obtusely angulate at anterior third, straight and moderately convergent posterior to this; surface trifoveolate, the anterior pair of foveae more elongate and less impressed than the posterior, median one; surface between the impressions low and rounded. Elytra together broader than long, sides nearly straight, posterior angles narrowly rounded, posterior border convex. Abdomen greatly inflated and projected forward; apical segment completely chitinized, penultimate segment chitinized on apical half, remaining segments (visible from above) largely membranous, each with a narrow chitinous band. Legs slender, posterior tibiae slender.

Host.—*Nasutitermes* (*Constrictotermes*) *cavifrons* (Holmgren).

Type-locality.—Kartabo, British Guiana.

Described from seven specimens taken from several nests of the host species.

C. guyanae resembles *C. melantho* Schiödte in having the front foveolate, and *C. phyllo* Schiödte in having the disc of pronotum trituberculate and the posterior tibiae linear instead of fusiform. It differs from *phyllo* in its broader pronotum, the much less pronounced tubercles and from both of the described species in the shape of the elytra, which have the outer, posterior angles broader and not acuminate produced. The maxillary palpi are markedly different in *guyanae*, the third joint instead of being thickly oval and about as long as the second, is greatly enlarged, nearly three times as long and twice as broad as the second.

Thyreoxenus gen. nov.

Female.—Small, robust species, largely membranous, abdomen strongly inflated and permanently projected over meso- and metanotum. Head very small, broader than long, not constricted behind. Labrum membranous, broad, rather narrowly concave at middle of anterior border. Mandibles small, slender, arcuate, acute at tips. Mentum broad, trapezoidal, nearly straight in front. Maxillary palpi 4-jointed, basal joint small, second joint slender, third joint thicker and oval, terminal joint small, awl-shaped. Ligula short and broad, indistinctly bilobed. Labial palpi 3-jointed. Antennae 11-jointed, first joint scapiform, remaining joints (except the apical) short; apical joint elongate, its sides parallel to near apex, then converging into a short, connate tip. Eyes small, oval, situated at sides of head. Prothorax large and convex, three times as broad as head and partly enveloping it in front; membranous except for a transverse chitinous plate on anterior half of dorsum and very narrow lateral bands that connect it with a transverse band on the sternum; dorsal plate divided at middle by a longitudinal incision, which does not extend to the anterior or posterior borders; prosternum with a median, elongate, lobe-like membranous production. Meso- and metasternum strongly chitinized, not separated by a suture, elongate, subquadrate, obtusely carinate at middle, the carina terminating anteriorly in a flat, triangular area; posterior border projecting as a broad, obtuse triangle between the posterior coxi. Elytra small, strongly divergent posteriorly, each about twice as long

as broad, with straight, subparallel sides, posterior border oblique, with corners rounded. Wings reduced to elongate, oval, pad-like vestiges. Abdomen strongly inflated, elevated and projected forward, five ventral segments visible from above; dorsal sclerites (not visible except when gaster is straightened) chitinized; ventral sclerites largely membranous but with thin chitinous plates in front at middle; apical and penultimate sclerites chitinous, between them with a large, rounded collar-like membranous inflation.

Legs short and rather stout, femora irregularly constricted at middle. Tarsi 4-4-4 jointed; metatarsi short. Anterior and middle coxi widely separated, elongate, conical; posterior coxi less widely separated and shorter.

Male.—Similar in form to female, but smaller and more slender, with the chitin on the ventral (upper) abdominal sclerites limited to well defined, transverse bands at the anterior border of each segment except the terminal, which is chitinous throughout.

Genotype.—*Thyreoxenus parviceps*, sp. nov.

Though evidently a member of the tribe Corotocini *Thyreoxenus* in an aberrant genus, even in this aberrant tribe, and sharply distinct from the others in the structure of the abdomen, the unusual development of the membranous areas, in the collar-like development near the tip of the abdomen and especially in its very small head.

It is represented in the collection by three species, two small and largely white in color and one large form with dark brown pigmentation over nearly the entire body. Each appears to be a guest of a different species of *Nasutitermes*.

Thyreoxenus parviceps sp. nov.

Length.—(In alcohol) 2.50-2.75 mm.

Membranous portion white; chitin of head, pronotum and the femora and tibia dark brown, elsewhere pale brown tarsi

white. Appendages and abdomen with rather short, erect black hairs, their points of insertion on the abdomen marked by small, fuscous dots.

Head a little broader than long, sides behind eyes nearly straight. Eyes occupying anterior half of sides of head. Basal antennal joint as long as the four following joints together;

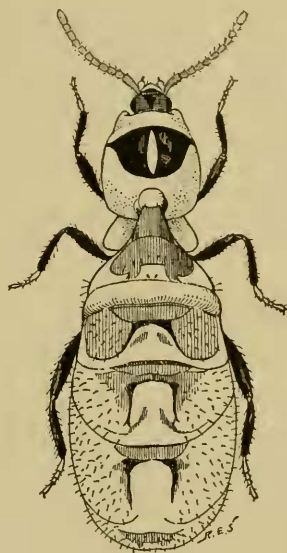


FIG. 29. *THYREOXENUS PARVICEPS* SP. NOV.

joints 2-10 subequal, only slightly larger apically, a little broader than long; terminal joint a little shorter than the two preceding joints together. Median membranous projection of mesosternum longer than broad (seen from behind) and rounded at apex; from beneath, about twice as broad as long. Posternum transversely impressed posterior to middle. Chitinous bands on upper (ventral) abdominal sclerites narrow, arranged in three sided figures.

Host.—*Nasutitermes* (*nasutitermes*) *costalis* (Holmgren).

Type-locality.—St. Joseph, Trinidad.

Other localities.—Georgetown and Kartabo, British Guiana.

Thyreoxenus pulchellus sp. nov.

(Fig. 30)

Female.—Length 2.50 mm.

Differing from *Th. parviceps* in the arrangement of the chitinous areas on the upper surface of the abdomen; the penultimate segment is evenly chitinous, the third (from the apex)

FIG. 30. *THYREOXENUS PULCHELLUS* SP. NOV.

is chitinous at the sides and in front and membranous at middle, the latter portion not bordered by a strongly chitinized margin; the fourth segment is thinly chitinous, except for a narrow, median surface rounded in front; the fifth segment is still more thinly chitinized except in front and the median, entirely membranous portion is oval in shape; the last segment (visible from above) has a transverse bar in front, similar to *parviceps*. The collar-like, membranous projection between the apical and penultimate segments is proportionately larger than in the other species.

Host.—*Nasutitermes* (*Nasutitermes*) *ephratae* (Holmgren).

Type-locality.—Kartabo, British Guiana.

Thyreoxenus major sp. nov.

Length.—(In alcohol) 3 mm.

Larger and more robust than *parviceps* and much darker in color, with the upper surface of the abdomen brown and the

second, third and fourth (from the apex) segments each with a large, quadrate median blotch considerably darker than the rest. Sides of prothorax thinly chitinized and infuscated.

Head subopaque; chitinized portions of thorax and abdomen shining. Median plate on pronotum with sparse, fine, erect hairs, much shorter than those on abdomen. Hairs on abdomen long, rather stiff and erect. Sides of prothorax uneven, impressed at middle, roundly tuberculate in front. Membraneous collar-like process on abdomen nearly obsolete. Each segment of the abdomen (above) broadly impressed posteriorly to the front border; front borders elevated at middle into a rather coarse and blunt carina, which is distinctly lighter in color than the surrounding surface.

Host.—*Nasutitermes* (*Nasutitermes*) *guayanae* (Holmgren).

Type-locality.—Kartabo, British Guiana.

Described from a unique specimen.

Eburniola gen. nov.

Head small, elongate, thin in profile; only slightly narrowed behind; vertex with a strong, narrow, longitudinal impression that terminates on the front in a broad impression, which is bordered arcuately in front; anterior portion of front not produced, truncate. Clypeus membranous, strongly transverse, concave at front border. Labrum corneous, broad, anterior border scarcely concave. Submentum nearly oval, disc with a pair of conspicuous setae. Mentum small, slightly transverse; excised at middle of anterior border. Ligula very small and slender, apparently simple. Labial palpi 3-pointed, minute. Maxillary palpi 4-jointed; basal joint very small, second joint oval, a little longer than broad; third joint twice as long as broad, moderately compressed, about as broad basally as at apex, the sides little convex, rather strongly setose; terminal joint less than half as long as the third, broadly awl-shaped. Eyes situated in front of sides of head, little convex, their outer border on a plane with outline of sides of head, in outline 4-sided rather than oval, with the nearly straight sides

separated by rounded angles. Antennae situated in very small sockets at sides of anterior border of front, 11-jointed, very thick; first joint nearly as long as the three following joints together, thickly clavate and about half as long as head; second joint transverse; joints 3-10 thick, about as long as broad, subequal, quadrate in outline and not separated by constrictions; terminal joint elongate oval, one and two-thirds times as long as the penultimate.

Pronotum strongly impressed over the greater portion of the disc, anterior border elevated and narrowly rounded, posterior border sloping; sides inflexed, concealing side pieces. Elytra well developed, separated from front to rear by a narrow, triangular fissure. Chitinous portion of posternum transverse, truncate in front and behind. Mesometasternum longer than broad, median portion flat; posterior border truncate and not at all projecting between coxae. Abdomen permanently recurved, large and deeply and broadly inflated, largely membranous, nearly flat above, the marginal line weakly impressed; ventral segments strongly convex, with strong impressions between; six segments visible from above. Legs short, femora and tibiae not flattened, the middle and posterior pair somewhat arcuate. Anterior coxae elongate, conical, posterior and middle shorter and conical, all moderately separated, the posterior more widely than the others. Tarsi 4-4-4 jointed, middle and posterior metatarsi elongate, but shorter than the remaining joints together.

Genotype—*Eburniola leucogaster* sp. nov.

Eburniola leucogaster sp. nov.

(Fig. 31).

Length.—(With abdomen straightened) 1.50-1.75 mm.

Pale brown, abdomen mostly ivory white, with the chitinized portions a little darker brown than the head and thorax. Gaster, especially at sides, strongly shining, remainder feebly shining and coriaceous. Head, thorax and elytra without erect hairs; pubescence sparse and exceedingly minute. Dorsal abdominal segments with an inconspicuous, erect hair on each

side; apical and penultimate segments thinly covered with recumbent, very fine yellow hairs. Basal ventral segments with abundant long and fine erect hairs, which become sparser and shorter on the apical segments and are lacking on the penultimate and terminal segments. Appendages with moderately abundant erect hairs.

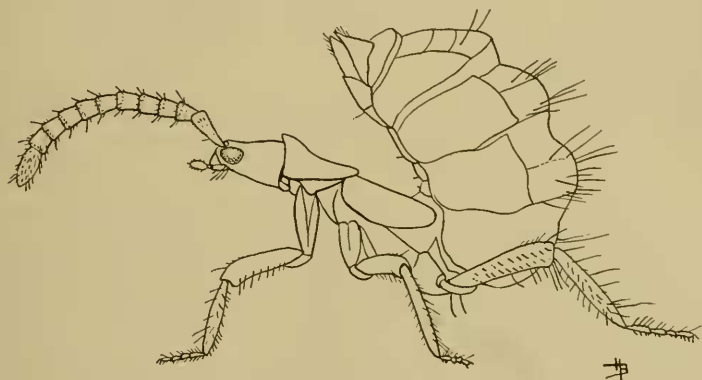


FIG. 31. *EBURNIOLA LEUCOGASTER* SP. NOV.

Head distinctly longer than broad, slightly narrowed in front. Eyes less than half as long as head. Antennae reaching to posterior end of elytra, very stout, nearly one-third as broad as head. Pronotum a little broader than long and a little broader than the head; anterior and posterior corners rounded. Elytra at base slightly broader than the pronotum, broader than long, sides divergent, arcuate at basal half, nearly straight at apical half, posterior border straight, inner angles broadly rounded, outer angles subacute. Abdomen longer than the remainder of body, more than twice as broad as the elytra; dorsal chitinous plates 1-4 very short, extending the width of the segments, each with the anterior margin broadly concave at middle; penultimate and apical segments entirely chitinized, subquadrate in shape, strongly transverse, less than half as long as the segments, extending at sides as thin lines which become obsolete before attaining the dorsum. Anterior femora of subequal width throughout; middle and posterior tibial very gradually enlarged from base to apex.

Host.—*Nasutitermes* (*Nasutitermes*) *guayanae* (Holmgren).

Type-locality.—Kartabo, British Guiana.

Other locality.—St. Joseph, Trinidad.

Described from a series of ten specimens.

Perinthus tarsatus sp. nov.

Length.—2.50 mm.

Dark brown, abdomen and appendages paler than head and thorax, moderately shining, with abundant very fine, short yellow pubescence and in addition with coarse and long black hairs arranged as follows: five on pronotal margins; two on elytral margins; one on each elytron; a series of four (interspersed with shorter and finer hairs) at the posterior border of each abdominal segment above and from four to six beneath. Antennae with a series of long hairs at the apex of each joint.

Head a little broader than long, front not margined, rather flat, vertex convex. Antennae distinctly longer than the head and pronotum together, basal joint slightly shorter than the second and third together, joints 4-11 strongly compressed, a little longer than broad; terminal joint suboval, one and one-third times as long as the penultimate. Pronotum about one-third broader than long, narrowest in front, sides convex, anterior and posterior corners broadly rounded, anterior border concave, posterior border concave at sides, slightly convex at middle. Elytra basally as broad as the pronotum, sides feebly convex, posterior angles obtuse, posterior border nearly straight. Abdomen longer than remainder of body, connate, first five segments margined. Tarsal claws long and very slender.

Host.—*Nasutitermes* (*Nasutitermes*) *surinamensis* (Holmgren).

Type-locality.—Kartabo, British Guiana.

P. tarsatus is nearest to *silvestrii*, but that species has antennal joints 7-10 slightly transverse, the terminal joints is twice as long as the penultimate and the body above is not setose.

Perinthus wasmanni sp. nov.

Length 1.60-2 mm.

Dark reddish brown, elytra darker than the rest and the abdomen and appendages paler. Moderately shining and microscopically punctate and covered with rather abundant, fine and short yellow pubescence and in addition fine, long and erect hairs arranged as follows: six on lateral margins and twelve on the disc of pronotum; two at the lateral margins and two on the disc of each elytron; a row of four at the posterior border of each abdominal segment above and a row of six to eight beneath. Antennae with shorter and rather stiff hairs. Legs with dense short hairs.

Head broader than long, rounded at sides, front flat, vertex convex. Antennae slightly shorter than the head and prothorax together; the first joint a little shorter than joints 2-3 together, joints 2-3 suboval and equal in length; joints 4-10 strongly compressed, subequal, slightly broader than long, terminal joint nearly as long as the two preceding joints together. Pronotum about one and two-fifths as broad as long, narrowest in front, sides moderately concave, anterior and posterior corners rounded, posterior border concave at sides, convex at middle. Elytra as broad basally as the pronotum, together more than twice as broad as long, sides nearly straight, anterior corners broadly rounded, posterior corners obtusely angulate.

Host.—*Nasutitermes* (*Nasutitermes*) *ephratae* (Holmgren).

Described from a small series.

This species in habitus closely resembles *dudleyanus* Casey from Panama but may be distinguished by the relatively short elytra. In *dudleyanus* the length of the suture is nearly two-thirds that of the pronotum; in *wasmanni* it is less than half.

Perinthus vestitus sp. nov.

Length 1.90-2 mm.

Reddish brown, elytra darkest, abdomen and legs lightest. Head, thorax and abdomen very distinctly, though shallowly

punctate and thickly covered with semi-recumbent, yellow pile much longer than that of *wasmanni* or *tarsatus* and in addition with a series of four strong black hairs on the lateral borders of pronotum, two on the outer margins of the elytra and a row on the ventral abdominal segments; abdomen also with long, fine and yellow hairs on the posterior margins of the segments.

Head barely broader than long; front flat, vertex convex. Antennae much shorter than head and pronotum together, first joint nearly as long as the second and third together, second and third joints elongate, sub-cylindrical, remaining joints compressed, all a little longer than broad, terminal joint nearly as long as the two preceding joints together. Pronotum about one-fourth broader than long, only slightly narrower in front than behind, sides feebly convex, anterior border nearly straight, posterior border feebly convex at middle. Elytra a little narrower than pronotum, together much broader than long, sides nearly straight, posterior corners angulate, posterior borders straight. Abdomen rather broadly margined.

Host.—*Nasutitermes* (*Nasutitermes*) *octopilis* (Banks).

Type-locality.—Kartabo, British Guiana.

The comparatively long and dense pubescence and the arrangement of the setae, with the more elongate and different shaped pronotum distinguish *vestitus* from the other species of *Perinthus*. The long hairs on the dorsal segments of the abdomen are unusually fine and are yellow in color, similar to the shorter hairs.

Tribe Oxypodini

Termitogaster simulans sp. nov.

(Fig. 32).

Length (with abdomen straight) 3 mm.

Head, thorax and elytra dark brown; front of head, abdomen, ventral surface and antennae reddish brown, legs and palpi yellowish brown. Rather strongly shining and finely alutaceous; outer and inner inflexed portion of elytra densely

punctate. Erect hairs on head, thorax and elytra, short and fine, several at sides of occiput, four rows of 4-5 each on pronotum and a row of four on each elytron; each dorsal sclerite of abdomen with two pairs of longer, black, erect hairs, one pair at middle of basal border and one at middle of posterior third, the apical borders with a row of long recumbent

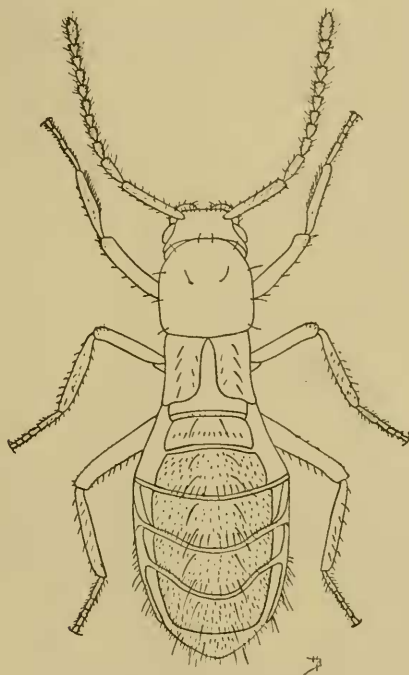


FIG. 32. *TERMITOGASTER SIMULANS* SP. NOV.

yellow hairs; sides of dorsum and the sides and ventral surface with moderately dense yellow pubescence; appendages with short and rather stiff, flattened, oblique yellow hairs.

Head about as long as broad, distinctly widest at occipital border which is broadly arcuate; front concave on either side, longitudinally convex at middle to opposite antennal surface, where there is a broad, transverse elevation with an oblique anterior face and truncate borders. Labrum distinct, convex at sides, strongly excised at middle of anterior border. Eyes prominent, oval, a little less than half as long as head. First

antennal joint a little shorter than head, in cross section subquadrate; second joint nearly four times as long as broad and one and two-thirds times as long as the second; third joint more than half as long as the second, distinctly longer than broad; joints 4-10 gradually shorter, the tenth scarcely longer than broad; terminal joint elongate-oval, narrowed and rounded at tip. Pronotum a little longer than broad, with nearly straight subparallel sides, with strongly arcuate anterior border and rounded angles, posterior border, narrowly and shallowly concave at middle; surface with a longitudinal very shallow median impression in front of middle and a flattened triangular area at middle near posterior border. Elytra at base as broad as pronotum, similar to those of *simopelta* but with the posterior margin concave and the outer angles less projecting. Abdomen large, evidently not held erect, in all the specimens before me it is strongly compressed and about twice as long as broad. It may not be as strongly compressed in life, as a distinct marginal line is present, but it is so in the alcoholic as well as in the dried specimens before me); segments comparatively long, each with a transverse carina posterior to middle; membranous portions narrow, not visible in all specimens. Legs slender, middle and posterior femora strongly flattened and bent; tibiae moderately flattened; metatarsi shorter than the remaining tarsal joints.

Host.—*Nasutitermes* (*Nasutitermes*) *costalis* (Holmgren).

Type-locality.—Kartabo, British Guiana.

Described from nine specimens taken with several colonies of the host termite.

In three of my specimens the sixth abdominal segment has the border evenly emarginate, as described by Casey in the male of *Termitogaster fissipennis*, the others, presumably females, have the border produced, but rounded instead of angulate.

The resemblance to a worker termite is strong even in dried and pinned specimens and must be strikingly so in the

living beetle. From the structure of the abdomen, it is evidently carried straight, or but slightly elevated.

Termitogaster simopelta sp. nov.

(Fig. 33).

Length (with abdomen straightened) 2.50 mm.

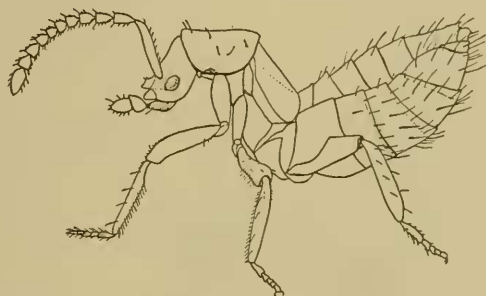


FIG. 33. *TERMITOGASTER SIMOPELTA* SP. NOV.

Color pale yellowish brown, elytra a little darker than the remainder; exposed membraneous portions white. Integument alutaceous, shining, the gaster more than the rest.

Erect hairs short and rather stiff, black in color, lacking on head, ten on disc of pronotum, two on each elytron; a row of 4-6 at the middle of each dorsal abdominal sclerite (the posterior border of each sclerite with a thin row of recumbent hairs); more abundant on ventral surface of abdomen; short on appendages where there are also abundant, fine and short, erect yellowish hairs. Ventral surface of thorax with dense and very fine yellow pubescence.

Head about as long as broad, vertex transversely convex, front concave, except near anterior margin where there is a transverse ridge, thick basally and acute above (appearing dentiform from the side), anterior border obliquely concave at sides, acutely excised at middle, with a thin, sharp triangular erect tooth at either side of incision. Clypeus very short and broad, strongly concave at middle of anterior border. Labrum

transverse, longitudinally impressed at middle and convex at sides. Eyes oval, rather strongly convex, nearly half as long as head, situated in front of middle of sides. First antennal joint a little shorter than head, in cross section subquadrate, the sides somewhat flattened, and separated from each other by an angle; second and third joints a little thicker than the others and about twice as long as broad, following joints scarcely longer than broad and decreasing in length to the penultimate which is as broad as long; apical joint oval, less than twice as long as broad and narrowed at tip. Pronotum about as long as broad, sides and anterior border nearly straight, posterior border rounded at middle, disc broadly concave in front of middle. Elytra together longer than broad at base; narrowly connected at base, the remainder broadly separated; each elytron two and one-half times as long as broad, with feebly concave outer border, straight inner border and concavely oblique posterior border with the outer angles slightly produced. Abdomen widely inflated, two and one-half times as broad as the pronotum, all segments, except the apical, margined; membranous portions narrow, in some specimens not visible between the dorsal sclerites. Legs moderately long; femora and tibiae strongly flattened; posterior femora on upper border concave at basal five-eighths, then oblique, the margin forming, in outline, a broad triangle posterior to middle; anterior tibiae with a brush of coarse, rather flat yellow hairs, arranged in two rows; each metatarsus a little shorter than the other tarsal joints together.

Host.—*Nasutitermes* (*Nasutitermes*) *costalis* (Holmgren).

Type-locality.—Kartabo, British Guiana.

***Termitogaster emersoni* sp. nov.**

(Fig. 34).

Female.—Length (in alcohol and with abdomen straightened) 3 mm. Color brown, pronotum dark brown to black, membranous portions white. Shining. Sparse erect hairs on head, three rows of four each on pronotum, one on each elytral

disc, one at the side of each dorsal abdominal sclerite (a row of recumbent hairs on the apical margins) and scattered and more abundant on the vertical surface.

Head a little broader than long, front broadly concave, sides posterior to eyes feebly convex, occipital border broadly rounded; anterior border very slightly concave. Labrum trans-

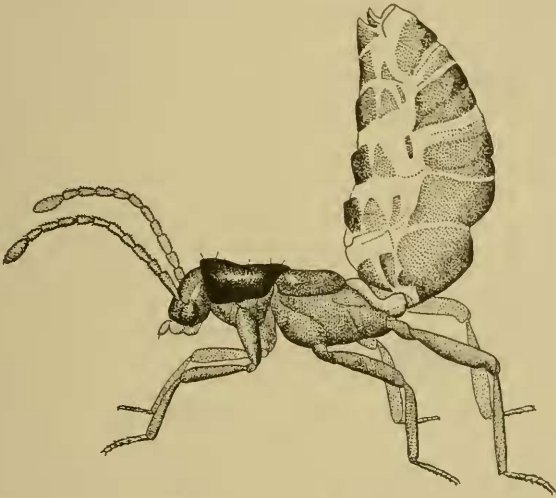


FIG. 34. *TERMITOGASTER EMERSONI* SP. NOV.

verse, broadly concave in front. Eyes oval, less than half as long as head and situated near anterior border. First antennal joint as long as head, second and third joints nearly three times as long as broad, joints 3-10 proportionately shorter, but all distinctly longer than broad, decreasing in length apically; terminal joint less than twice as long as the penultimate. Maxillary palpi with the basal joint very small, second joint broader than long, its greatest width at anterior border, which is nearly straight and rather pointed at the angles, outer surface convex, inner surface concave; third joint as long as the second, longer than broad, gradually narrowed apically; apical joint minute and spiniform, less than half as long as the third. Joints of labial palpi very small and slender. Mandibles stout, acuminate apically, thickened at middle. Pronotum wider than the head, about as broad as long and slightly broader in front than behind, sides and posterior border convex, the angles

broadly rounded, anterior border moderately projecting and rounded at the middle; surface in front of middle with a pair of broad and rather shallow impressions and behind middle with a pair of smaller and less distinct pits. Scutellum distinct, broadly triangular. Elytra shorter than the pronotum, separated at apex by a V-shaped area about half their length, together much broader than long, humeri subgibbous, sides feebly arcuate, posterior angles projecting and narrowly rounded, posterior border concave. Abdomen widely inflated, longer than the remainder of body, more than twice as broad as elytra, sides arcuate, broadly margined, the segments separated by broad bands of membrane. Legs moderately long and slender, middle and posterior metatarsi long, anterior metatarsus one and one-half times as long as the second joint.

Host.—*Nasutitermes* (*Nasutitermes*) *ephratae* (Holmgren).

Type-locality.—Kartabo, British Guiana.

Other locality.—St. Joseph, Trinidad.

Described from a series of specimens taken from several nests.

This species is near *T. brevis* but distinct in its larger size, more elongate structure, the more shallowly impressed front of head and in the strongly impressed pronotum and the separated elytra, as well as in having the membranous portions more developed than in the other species of *Termitogaster*.

Termitogaster brevis sp. nov.

Female.—(in alcohol and with abdomen straightened)
2.75 mm.

Chitinous parts brown, pronotum dark brown to black, membranous portions white. Shining, microscopically punctate. Erect hairs black, fine, scattered on anterior portion of head; arranged in four rows of five on the pronotum; one on each elytron at base; four on each abdominal sclerite above, shorter on ventral surface; posterior margin of each abdominal segment with a row of very fine recumbent hairs.

Head broader than long, vertex rather strongly longitudinally impressed at middle and with more shallow impressions lateral to this; anterior portion of front broadly and shallowly impressed transversely and separated from the remainder by a carinae that extends transversely in an irregular arc across the front; anterior border broadly and strongly excised. Eyes oval, convex, occupying anterior half of sides of head. First antennal joint as long as head, somewhat flattened basally; second and third joints subequal, less than twice as long as broad, remaining joints gradually shorter to the penultimate, which is scarcely longer than broad, terminal joint shorter than the two preceding joints together. Pronotum slightly transverse, a little broader in front than behind, sides and posterior border feebly convex, anterior border nearly straight, posterior angles broadly rounded; surface with a strong pit at middle and a more shallow pair in front of this, posterior portion with a shallow transverse groove near the border. Elytra connate, together strongly transverse, broadest behind, sides nearly straight, posterior border very broadly concave, posterior angles rounded, not produced. Abdomen short and thick, more than twice as broad as elytra, with rather weak lateral margins. Legs short and rather slender. Femora and tibiae moderately flattened.

Host.—*Nasutitermes* (*Nasutitermes*) *costalis* (Holmgren).

Type-locality.—Kartabo, British Guiana.

Other locality.—St. Joseph, Trinidad.

Described from a series taken in nests of the host.

Superficially this species appears identical with the genotype, *T. insolens* Casey from Panama, but comparison with the type shows a number of differences in the structure of the head, which, in *insolens*, is comparatively longer; the median vertical impression is feeble, the anterior portion of front is not so distinct from the remainder and the anterior border is broadly arcuate, instead of excised as in *brevis*.

The maxillary palpi of *brevis* are shorter and broader than in *emersoni*, the third joint is oval, much less than twice as long as broad and distinctly shorter than the second.

Host.—*Nasutitermes* (*Nasutitermes*) *guayanae* (Holmgren).

Type-locality.—Kartabo, British Guiana.

Other locality.—St. Joseph, Trinidad.

Described from a series of ten specimens.

***Perinthus tarsatus* sp. nov.**

Length.—2.50 mm.

Dark brown, abdomen and appendages paler than head and thorax, moderately shining, with abundant very fine, short yellow pubescence and in addition with coarse and long black hairs arranged as follows: five on pronotal margins; two on elytral margins; one on each elytron; a series of four (interspersed with shorter and finer hairs) at the posterior border of each abdominal segment above and from four to six beneath. Antennae with a series of long hairs at the apex of each joint.

Head a little broader than long, front not margined, rather flat, vertex convex. Antennae distinctly longer than the head and pronotum together, basal joint slightly shorter than the second and third together, joints 4-11 strongly compressed, a little longer than broad; terminal joint suboval, one and one-third times as long as the penultimate. Pronotum about one-third broader than long, narrowest in front, sides convex, anterior and posterior corners broadly rounded, anterior border concave, posterior border concave at sides, slightly convex at middle. Elytra basally as broad as the pronotum, sides feebly convex, posterior angles obtuse, posterior border nearly straight. Abdomen longer than remainder of body, connate, first five segments margined. Tarsal claws long and very slender.

Host.—*Nasutitermes* (*Nasutitermes*) *surinamensis* (Holmgren).

Type-locality.—Kartabo, British Guiana.

P. tarsatus is nearest to *silvestrii*, but that species has antennal joints 7-10 slightly transverse, the terminal joints is twice as long as the penultimate and the body above is not setose.

Perinthus wasmanni sp. nov.

Length 1.60-2 mm.

Dark reddish brown, elytra darker than the rest and the abdomen and appendages paler. Moderately shining and microscopically punctate and covered with rather abundant, fine and short yellow pubescence and in addition fine, long and erect hairs arranged as follows: six on lateral margins and twelve on the disc of pronotum; two at the lateral margins and two on the disc of each elytron; a row of four at the posterior border of each abdominal segment above and a row of six to eight beneath. Antennae with shorter and rather stiff hairs. Legs with dense short hairs.

Head broader than long, rounded at sides, front flat, vertex convex. Antennae slightly shorter than the head and prothorax together; the first joint a little shorter than joints 2-3 together, joints 2-3 suboval and equal in length; joints 4-10 strongly compressed, subequal, slightly broader than long, terminal joint nearly as long as the two preceding joints together. Pronotum about one and two-fifths as broad as long, narrowest in front, sides moderately concave, anterior and posterior corners rounded, posterior border concave at sides, convex at middle. Elytra as broad basally as the pronotum, together more than twice as broad as long, sides nearly straight, anterior corners broadly rounded, posterior corners obtusely angulate.

Host.—*Nasutitermes* (*Nasutitermes*) *ephratae* (Holmgren).

Described from a small series.

This species in habitus closely resembles *dudleyanus* Casey from Panama but may be distinguished by the relatively short elytra. In *dudleyanus* the length of the suture is nearly two-thirds that of the pronotum; in *wasmanni* it is less than half.

Perinthus vestitus sp. nov.

Length 1.90-2 mm.

Reddish brown, elytra darkest, abdomen and legs lightest. Head, thorax and abdomen very distinctly, though shallowly

as broad; joint longer than the two preceding joints together. Pronotum longer than broad, widest at anterior corners which are rounded, sides feebly concave, anterior, posterior borders arcuate, surface moderately and evenly convex. Scutellum small, transverse. Elytra together much broader than long and broadest behind, each less than twice as long as broad;

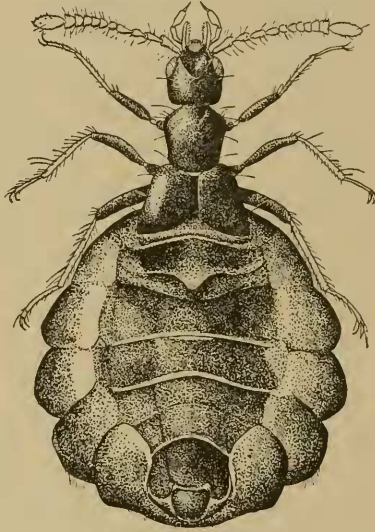


FIG. 35. *CORYMBOGASTER MIRANDA* SP. NOV.

humeri elevated and convex, sides at middle exceedingly shallowly concave, behind straight and divergent, and forming, with the oblique, nearly straight posterior border a distinct angle; inner corners broadly angulate. Abdomen nearly four times as broad as elytra and in profile three times as deep as metathorax; dorsal surface with an elevated median portion, feebly convex and separated from the flat lateral areas by a poorly defined longitudinal impression; sides separated by a strong marginal impression.

Host.—*Cornitermes* (*Cornitermes*) *pugnax*, Emerson.

Type-locality.—Kartabo, British Guiana.

Described from six specimens.

The description and figure based on the specimens which have the abdomen the least distended. In these the membranous portions are of limited to small portions along the margins of the dorsal surface. Other specimens have the membrane developed to such an extreme that the chitonized portions appear as small plates, the large gibbosities at the sides are greatly reduced, with the chiton showing only as a pair of very narrow, parallel plates. In one the abdomen is at least three times as long as broad and even on the dorsum the plates extend scarcely half its width.

Termitophya punctata sp. nov.

(Fig. 36).

Length.—2.75-3 mm.

Head, thorax, elytra and appendages dark brown; abdomen pale brown, each segment with a darker median blotch. Shining. Head with coarse regular separated punctures; smooth between. Pilosity stiff and erect, moderately long, very sparse except at the tip and on the ventral surface of the abdomen and on the legs, two of them near the inner border of eyes, three near the lateral borders of pronotum and two pairs on each elytral disc; one at middle of margin, stout semi-recumbent black hairs in a row of six at the posterior margins of the dorsal abdominal segments; head, thorax and elytra with very minute recumbent whitish hairs.

Head a little broader than long, front and vertex broadly convex, sides immediately in back of eyes subparallel, anterior border nearly straight. Labrum broad, strongly though very narrowly excised at middle, membranous at middle, corneous at sides, the sides elevated into low tubercles in front. Eyes moderately convex, occupying front half of sides of head. Antennae a little longer than head and pronotum together; first joint swollen, much broader than the others and nearly as long as the second and third together; second joint shorter than third, remaining joints subequal, terminal joint shorter than the two preceding joints together. Pronotum somewhat broader than head, a little longer than broad, broadest in front

of middle and as broad in front as behind; anterior border straight, posterior border evenly convex, anterior corners rather narrowly rounded, posterior corners very broadly rounded, sides only feebly convex. Elytra as broad as pronotum, together broader than long, sides nearly straight, posterior corners rounded, border concave at middle. Abdomen con-

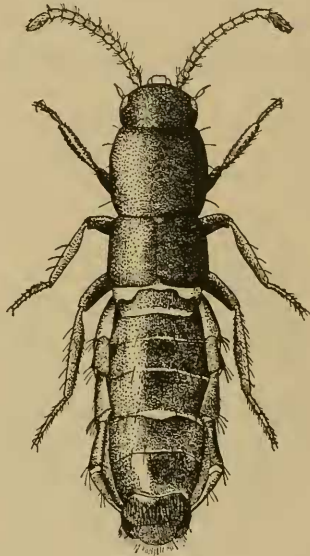


FIG. 36. *TERMITOPHYA PUNCTATA* SP. NOV.

siderably longer than the head and thorax together, broadly margined at sides for entire length; feebly convex above and rather strongly below; penultimate tergite trapezoidal, twice as broad as long and straight at the posterior border; last tergite subtriangular, with the apex narrowly rounded.

Femora strongly compressed, tibiae less compressed; posterior metatarsus one and three-fourths times as long as the remaining joints together; claws moderately long and slender.

Host.—*Nasutitermes* (*Nasutitermes*) *guayanae* (Holmgren).

Type-locality.—Kartabo, British Guiana.

Described from four specimens.

This, and the following two species belong to the genus *Termitophya*, though none of the specimens before me bear strong cerci on the last dorsal segment, as figured by Wasmann. (Tijdschr. Ent., vol. 45, 1902, pl. 9, fig. 1) and possibly represent the opposite sex.

T. punctata is near *T. heyeri* Wasm. but has the pronotum proportionately longer and rounded instead of angulate at the anterior corners. The punctation of the head is similar in both species.

Termitophya amica sp. nov.

Length.—(with abdomen straightened) 2.75-3 mm.

Head, thorax and elytra dark brown to black; appendages and abdomen pale brown, the latter with the median portion of dorsum dark. Shining; head with fine, though distinct, separated punctures and the intervals between with short and irregular, fine and dense striolae. Pronotum and elytra smooth; abdomen and appendages coriaceous. Erect hairs fine, black, sparse on appendages, a pair on head at inner border of eyes, three on the pronotal margins, two on each elytron. Dorsal abdominal segments 1-4 with a row of six coarser, recumbant hairs at apical margin; segment 5 with a pair of erect hairs; ventral segments with sparse, erect black hairs and, apically with elongate recumbant yellow hairs. Microscopic yellowish pubescence sparse on head and body, more distinct on legs.

Head broader than long, sides posterior to eyes slightly convex, occipital border broadly arcuate, anterior border straight, front flattened, at middle very shallowly impressed. Labrum large, entirely corneous, impressed at middle, narrowly excised at tip. Eyes moderately convex, a little longer than their distance to the posterior margin of head. First antennal joint stout, nearly as long as second and third together, third joint distinctly larger than the second, scarcely longer than broad, remaining joints a little longer than broad and becoming slightly narrower toward apex; terminal joint a little shorter than the two preceding joints together. Pronotum a little longer than broad, as broad in front as behind, with feebly

arcuate sides and posterior border, straight anterior border and broadly rounded angles; surface evenly convex. Elytra at base a little narrower than the pronotum at its widest part, together broader than long, sides straight, little divergent, posterior angles evenly rounded, the borders feebly convex and meeting at broad angle. Abdomen elongate, flat above, sides elevated as broad margins. Legs short, the femora broader than in *T. punctata* and distinctly though narrowly concave at middle of flexor border.

Host.—*Nasutitermes* (*Nasutitermes*) *guayanae* (Holmgren).
Type-locality.—Kartabo, British Guiana.

Described from five specimens.

This species is very close to *T. punctata*, differing, in addition to the broader legs, in the punctation of the head, in the arrangement of the erect hairs on the elytra and in having the pubescence more conspicuous.

Termitophya flaviventris sp. nov.

Length.—(with abdomen straightened) 3 mm.

Head, thorax and elytra rather pale brown; ventral surfaces and appendages lighter; dorsal surface of the abdomen yellowish, except for a median brown stripe. Shining, head finely and shallowly punctate; abdomen coriaceous. Erect hairs fine and shorter than in the other species; lacking on dorsal portion of head; four on sides of pronotum, two on each elytron. Coarser, black, semi-recumbent hairs arranged in rows of six unequal in size at the apical margin of abdominal segments 1-4 and one on either side of the same segments, one pair on penultimate segments and a row, mixed with long yellow hairs at the tip of apical segment; arranged in four irregular series on each ventral segment. Long and very fine yellow recumbent hairs scattered on dorsal surface of abdomen and arranged in rows at apices of ventral segments. Pubescence fine and recumbent, yellow in color, more conspicuous than in *punctata* and *amicus* and sparsely and regularly distributed on head, thorax and appendages.

Head transverse, similar to that of *amicus*; clypeus strongly and broadly convex. Labrum deeply and acutely incised at apical borders. First antennal joint much thicker than the others, a little shorter than joints 2-3 together; second joint thicker and somewhat shorter than the third, which is about twice as long as broad; remaining joints gradually decreasing in length; terminal joint one and three-quarter as long as the penultimate. Pronotum a little broader than long, straight in front, feebly convex at sides and posterior border, with the corners broadly rounded; surface moderately convex except in front of middle when it is very shallowly impressed. Elytra at base slightly narrower than pronotum; sides straight. Posterior angles broadly rounded; posterior borders obliquely convex and meeting at an obtuse angle. Abdomen elongate, the sides elevated as strong margins. Legs short; femora and tibiae broad and strongly compressed.

Host.—*Nasutitermes* (*Nasutitermes*) *costalis* (Holmgren).

Type-locality.—Kartabo, British Guiana (Aug. 1), St. Joseph, Trinidad.

Distinct from *T. amica* in its paler coloration, more distinct pubescence, the arrangement of the erect hairs and in the more slender antennae, all joints of which are more elongate in *flaviventris*. The two species are otherwise very similar.

Trachopeplus gen. nov.

Head suboval, broader than long, front with two strong lateral impressions confluent with antennal fossae, and a small median impression. Eyes rather large, oval and convex. Clypeus membranous, very short and broad, anterior border straight at middle. Labrum coriaceous, short, divided into two lobes by a strong, triangular median incision. Gula very short, with sides straight and divergent behind and not separated from submentum by a suture. Submentum large, a little broader than long, flat behind, oblique and a little narrowed in front, sides of posterior portion and the anterior border straight. Labium transverse, subquadrate. Ligula large broadly incised apically. Labial palpi 3-jointed; basal joint longer than broad and a

little thicker than the second; second joint distinctly longer than the basal; apical joint minute. Maxillary palpi 4-jointed, basal joint small, second joint twice as long as broad, very narrow at base and gradually thickened toward apex, outer surface convex, inner surface concave, the third joint a little longer than the second, elongate oval in outline and two and one-half times as long as broad, with convex outer surface and shallowly concave inner surface; apical joint exceedingly short and blunt at tip. Antennae 11-jointed, not thickened apically, first joint strongly scapiform, remaining joints elongate. Pronotum broad, strongly excised at middle, sides inflexed. Pronotum transverse, anterior border membranous; anterior half composed of a transverse chitinous plate that extends laterally as narrow bands joining to the side pieces; posterior half membranous. Meso- and metathorax together a little longer than broad, anterior border strongly concave, posterior border projecting between coxae and truncate at tip, surface flat in front, convex behind. Scutellum distinct, transverse. Elytra elongate and widely separated. Abdomen inflated, carried forward over the elytra and posterior portion of pronotum; six segments visible from above; all segments margined at sides.

Legs short and stout, femora and tibiae strongly flattened. Tarsi 5-5-5 jointed; metatarsus broad, a little shorter than the other joints together; fourth and fifth joints anchylosed; tarsal claws very slender.

Genotype.—*Trachopeplus setosus*, sp. nov.

Trachopeplus setosus sp. nov.

(Fig. 37).

Length.—(with abdomen straightened) 3 mm.

Head, antennae, pronotum and elytra dark brown to black, abdomen and ventral surface red-brown, legs yellow-brown. Shining, very finely punctate, pronotum and elytra with small tubercles, each bearing a hair. Front with sparse, rather strong punctures, elytra densely, rather coarsely but shallowly

punctate. Hairs black, very stiff, erect and moderately long and abundant on head, thorax, elytra, and appendages; on the abdomen they are semirecumbant and irregular in length and thickness, arranged in two rows of 10-12 on segments 2-5, one row on the basal segment; ten rows on the apical segment, and abundant on ventral surface (where arranged in three irregular rows) and legs.



FIG. 37. *TRACHOPEPLUS SETOSUS* SP. NOV.

Head broader than long, sides in back of eyes convex, posterior borders rounded; border feebly arcuate; antennal foveae extending to the vertex as a pair of broad, shallow depressions; anterior portion of front flat, the border a little produced and truncate apically. Clypeus broad and narrow, entirely membranous. Labrum distinctly concave at middle of anterior border. First antennal joint about as long as the head, third joint twice as long as broad, a little longer than the second and one and one-half times as long as the third; joints 3-10 distinctly longer than broad, gradually decreasing in length; terminal joint elongate, shorter than the two preceding together, with parallel sides and rounded tip. Eyes nearly half as long as head, convex, situated near front of sides. Pronotum transverse, as broad in front as behind. Sides very feebly concave, anterior border convex at middle, narrowly concave at sides; posterior border broadly arcuate at middle, nearly straight at sides; disc in front of middle broad with a deep transverse impression two-thirds its width, the surface

anterior to this nearly flat, posterior to it, convex. Elytra at base as broad as pronotum and about as long, widely separated from front to rear; each elytron nearly twice as broad as base as at apex, with straight outer border, feebly concave inner border and oblique, slightly arcuate posterior border; exterior corners subangulate. Abdomen a little less than twice as broad as pronotum, dorsal surface nearly flat, sides elevated as prominent margins. Legs rather short, femora and tibiae broadly flattened.

Host.—*Nasutitermes* (*Nasutitermes*) *acajutlae* (Holmgren).
Type-locality.—Kartabo, British Guiana.

Described from two specimens. (Mouth parts on slide.)

The shape of the head, the profoundly impressed pronotum, the structure of the maxilles and tarsi and the tuberculate nature of the pronotum, as well as the abundant and vary coarse and stiff hairs are distinctive and separate *Trachopeplus* from *Termitogaster*, with which it resembles somewhat in habitus and in the form of the antennae.

While there are five tarsal joints, the fourth and fifth are closely jointed and appear superficially as one, but in a balsam mount the suture is distinct, and furthermore marked by the arrangement of the hairs, which, with the other characters, place the genus in the Coloderae group.

Xenopelta gen. nov.

Robust; gaster moderately inflated and held elevated. Head elongate, front strongly and broadly impressed between eyes, abruptly elevated and longitudinally carinate at middle in front of antennal sockets, anterior border broadly angulate at middle and slightly projecting over base of clypeus. Clypeus membranous, strongly transverse, concave at anterior border. Labrum entirely membranous, strongly and broadly excised at middle of anterior border, with the surface of the lateral portions convex. Mandibles stout basally, slender and acute at apical half, unidentate on inner border. Mentum longer than broad, its surface flat, front border moderately elevated. Ligula very small, apparently simple. Labial palpi 3-jointed, the basal

and second joints much thicker than the terminal. Maxillary palpi 3-jointed; basal joint very small, second joint with the upper surface greatly produced into a chitinous, asymmetrical, arcuate lobe, that extends nearly to the apex of the third joint, basal portion flat; third joint thick, strongly convex above and nearly straight beneath. Antennae 11-jointed, not thickened apically; first joint scapiform. Eyes large, situated at sides of head. Prothorax elongate; disc of pronotum strongly impressed, sides elevated into thick rounded margins, anterior border elevated, projecting, narrowly rounded; posterior margin with flat surface and broadly rounded border. Elytra well developed, a little broader than long. Abdomen moderately inflated, more convex beneath than above; seven segments visible from above, all segments, except the terminal, broadly margined, lateral borders and the areas between the segments, both dorsally and ventrally, with narrow bands of white membrane.

Prosternum in front of coxae elevated into a ridge which is projecting and triangular at middle. Metasternum transverse, surface at middle convex; posterior border truncate between coxae. Anterior coxae large and conical, approximate. Middle and posterior coxae short, rather broad, separated. Legs flattened, tibiae especially so, the hind tibiae with the border very thin and with an indication of a submarginal line on inner surface. Tarsi 5-5-5 jointed, the joints sharply distinct; hind metatarsus a little shorter than the remaining joints together.

Genotype.—*Xenopelta cornuta*, sp. nov.

Xenopelta cornuta sp. nov.

(Fig. 38)

Female.—(length with abdomen straightened) 2.75 mm.

Dark reddish brown to black, gaster lighter, projecting tip of front and the apical half of tarsi yellow brown; feebly shining, the appendages more than the rest. Head and body rather coarsely, densely punctuate; appendages similarly, but much more finely sculptured; tibiae with coarse setigerous punctures.

Hairs black in color, lacking on head, a row of three on lateral borders of pronotum, two on each elytron, an oblique row of 10-12 on the posterior margins of abdominal segments 2-5 and a few near the basal border; one pair on penultimate abdominal segment; finer and rather abundant on ventral surface of abdomen; shorter on appendages.



FIG. 38. *XENOELTA CORNUTA* SP. NOV.

Head longer than broad and a little broader behind than in front, sides nearly straight, occipital corners and border broadly rounded. First antennal joint nearly as long as the head; joints 2-4 somewhat thicker than the following, the second twice as long as broad, remainder gradually decreasing in length to the penultimate which is about one and one fifth times as long as broad; terminal joint elongate oval, shorter than the two preceding joints together. Eyes less than half as long as head, situated a little in front of middle. Pronotum a little broader than head, broadest at anterior third; anterior angles rounded; depression occupying the larger part of the surface, deepest a little in front of middle with a large, shallow fovea at bottom on either side. Elytra broadest behind, with straight sides, rounded posterior corners and concave border. Abdomen one and three fourths times as broad as elytra.

Host.—*Nasutitermes* (*Nasutitermes*) *guayanae* (Holmgren).

Type-locality.—Kartabo, British Guiana.

Described from two females.

The basal point of the maxillary palpi is very small and visible only when the mouth-parts are dissected out.

Xenogaster fossulata sp. nov.

Female.—(length)—2.80 mm.

Head, pronotum and gaster coriaceous shining, elytra densely punctate and less shining. Hairs yellowish, fine and silky, moderately abundant on head, thorax and elytra and appendages. Dorsal segments of abdomen with a row of longer, nearly recumbant hairs at posterior border; ventral surface with fine long hairs.

Ferruginous, abdomen and legs lighter.

Head longer than broad and broader behind than in front, flat above, except for shallow elongate impressions that extend from antennal insertions a little more than half the distance to occipital border. Labrum broad, nearly straight in front. Maxillary palpi large, with the second joint distinctly longer, though more narrow than the basal; apical joint small, subulate and less than half as long as the penultimate. Eyes large, nearly flat, occupying anterior three-eighths of sides of head. Antennal scapes moderately thick, extending a little less than the distance to posterior border of head, first funicular joint subcylindrical and twice as long as broad, second joint similarly shaped but shorter, joints 3-9 subquadrate in profile, slightly transverse, apical joints but little broader than the others; terminal joint oval, about as long as the two preceding joints together. Pronotum longer than broad, sides in front of middle slightly convex, behind middle straight and very feebly convergent, anterior corners subangulate, posterior border truncate; dorsum strongly impressed at middle with the sides forming rounded borders to the pit, which is deepest in front and sloping behind with the surface of the posterior, sloping portion very feebly convex toward the basal half. Scutellum large. Elytra at base a little broader than pronotum, divergent behind, widely separated, the inner border slightly concave, outer borders nearly straight, posterior border rounded at tip. Abdomen not strongly inflated, sides only slightly convex, dorsal surface flat, strongly margined and elevated at sides.

Host.—*Nasutitermes* (*Nasutitermes*) *intermedius* (Banks).

Type-locality.—Kartabo, British Guiana.

Ceratoxenus gen. nov.

Physogastric species with the abdomen carried upward and forward over the thorax. Head broader than long, not constricted behind, margined in front, with projecting, thick spinose developments. Mandibles rather thick, elongate-triangular, curved at tips. Labrum entirely membranous, very strongly transverse, concave at anterior border. Mentum subquadrate, a little broader than long, broadly concave at anterior border. Ligula membranous, simple, transverse. Maxillary palpi 4-jointed, the joints coarse, second joint thicker and about as long as the third, second and third less than twice as long as broad, their outer surfaces convex, fourth joint short, subulate. Labial palpi 2-jointed, the basal joint distinctly thicker than the second. Antennae 11-jointed, first joint scapiform, apical portion slightly enlarged. Eyes a little less than half as long as sides of head. Pronotum with sides inflated vertically; anterior, inferior angles with an elongate acute spine. Prosternum elevated and margined at anterior border; prothoracic hypomera concealed. Elytra well developed, tapering and widely separated behind. Mesosternum as long as prosternum and longer than metasternum, surface behind coxae evenly convex, triangular, projecting, coxae narrowly separated, acetabuli closed. Abdomen about as long as the thorax, strongly convex beneath, plane above, six segments visible from above, margined at sides for entire length. Legs long, rather slender. Tarsi 5-5-5-jointed. Posterior metatarsus much shorter than the remainder of tarsus.

Genotype—*Ceratoxenus tricornis* sp. nov.

Ceratoxenus tricornis sp. nov.

(Fig. 39)

Female.—(length)—2.60 mm.

Head a little broader than long, sides and posterior border moderately rounded, vertex and front broadly impressed; anterior border of front strongly margined, the margin projecting at middle as a broad triangular tooth, at sides as elongate,

bluntly pointed, laterally compressed spines. Labrum broad, concave at anterior border, from above entirely concealed by the frontal margin. Mandibles rather thick and not very acute at tips. Antennae extending to posterior end of elytra; scape thick, as long as head from above; funicular joints 1-3 elongate, subcylindrical and equal in length, remaining joints more rounded and, toward apex becoming transverse; terminal joint

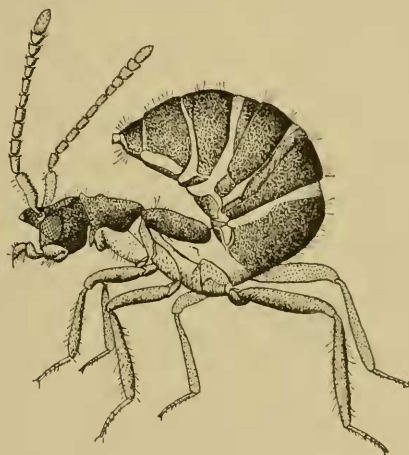


FIG. 39. *CERATOXENUS TRICORNIS* SP. NOV.

oval, less than twice as long as broad. Eye large, moderately convex, slightly emarginate at the border approximate to antennal insertions, occupying most of the front half of sides of head. Pronotum a little broader than long, side pieces nearly perpendicular, inferior anterior angles produced as spines; dorsum with lateral and front borders roundly margined and with a transverse ridge a little in front of middle, the anterior surface evenly concave and the posterior surface impressed and plane. Elytra a little narrowed at base and about as long as pronotum, very broadly separated, (the distance between their tips equal to their length) tapering and narrowly rounded at tips. Abdomen strongly inflated and carried above thorax; dorsal surface flat, sides and venter evenly convex, dorsal segments 1-4 subequal and less than half as long as the corresponding ventral segments. Legs moderately long and slender.

Finely coriaceous and opaque throughout. Rather stiff erect brown hairs sparsely distributed on head and body and appendages. Maxillary palpi with dense yellowish white hairs.

Color ferrugineous, with the abdomen, legs and palpi lighter than the rest; membranous portions pure white.

Host.—*Nasutitermes (Nasutitermes) guayanae* (Holmgren).

Tribe—Gyrophaenae

Blapticoxenus gen. nov.

Small, rather flattened species, tapering posteriorly. Head concealed beneath pronotal margin, small, not constricted, front subtriangular, front flat. Antennal fossae with acute margins which terminate at inner border of eye and approximate at middle of anterior border of front. Genae acutely margined. Labrum elongate, nearly straight at anterior border, triangularly depressed at sides, leaving a median portion shaped somewhat similar to an hour-glass, with broad and thin lateral margins. Mandibles small, arcuate, acute at tips, the right one dentate at middle of inner margin. Maxillary palpi 4-jointed, the first three joints elongate and subequal in length, terminal joint short, subulate. Labial palpi small, 2-jointed, the joints subequal. Ligula simple, elongate, rounded in front. Eyes large and convex, with rather large facets, occupying nearly all of the exposed sides of head. Antennae 11-jointed, not geniculate, the first joint much shorter than the second and third together. Pronotum broadly convex, inflexed at sides and in front. Prothoracic hypomera not visible. Anterior coxae very large and conical. Mesosternum much larger than pro- or metasternum, not carinate, slightly elevated posterior to coxae, separated from metasternum, coxal cavities closed, coxae approximated. Metasternum very short and conical. Elytra well developed, as broad as pronotum. Abdomen longer than head and pronotum together, tapering behind, first four segments strongly margined, seven segments visible from above, the sixth not impressed and the seventh not elongate. Legs short and

rather stout, tibiae not spinose; 4-4-5 jointed. First joint of posterior tarsi elongate.

Genotype—*Blapticoxenus brunneus* sp. nov.

***Blapticoxenus brunneus* sp. nov.**

Length.—1.75-1.90 mm.

Pale brown, shining, minutely punctate. Head, thorax and elytra devoid of hairs; abdomen with exceedingly coarse, black setae at sides and on ventral surface (on ventral surface arranged in rows near posterior margins of segments); legs and antennae with finer, shorter and yellow hairs; apex of the second and third antennal joints with strong, black, hairs.

Head a little broader than long, front flat, triangular, bordered by the distinct carinae that margin the antennal fossae; sides posterior to eyes oblique, slightly concave; posterior border straight. Antennae rather slender, extending a little beyond posterior borders at elytra; basal joint thicker than the others and longer than the second. Second joint very slightly clavate and shorter than the third; joints 3-4-subequal, longer and more slender than the remaining joints which decrease in length toward the tip; terminal joint elongate-oval, rounded at apex, much shorter than the two preceding joints together. Pronotum broader than long, broadest behind middle of sides, with slightly convex sides, broadly rounded anterior corners and border and rounded posterior corners; posterior borders very feebly bisinuate. Elytra more flattened than pronotum, together more than twice as broad as long, slightly broader behind, with nearly straight sides, subangulate posterior corners, posterior border nearly straight at sides and concave at middle. Dorsal abdominal segments 1-5 broader than long, segment 6 twice as long as broad and bluntly triangular in shape.

Host.—*Nasutitermes* (*Velocitermes*) *beebei* (Emerson).

Type-locality.—Kartabo, British Guiana.

Described from three specimens (one on slide).

This genus belongs in the tribe Gyrophaenae, but the joints of the maxillary palpi are unusually elongate. The depressed sides of the front of labrum, the elongate mesosternum are very characteristic.

Family—HISTERIDAE

Thaumataerius gen. nov.

Near *Teratosoma* (Lewis).

Body subquadrate, very long and slender, flattened above. Head elongate, mandibles strong and moderately projecting. Antennae inserted a little in front of middle of inner border of eyes; first joint subclavate, broad and thick, joints 2-8 gradually increasing in size; club large, one jointed, as long as the three preceding joints together, broadly rounded at tips. Antennal fossae visible from front and sides, thinly margined by prosternum and pronotum, capable of containing the entire antennae. Prosternum flat basally, sides between coxae straight, narrowly margined, posterior border truncate; rather strongly, transversely impressed at anterior fourth. Mesosternum flat at middle, about as broad in front as behind. Pronotum with projecting anterior and posterior corners, sides diagonally impressed, with deep, elongate fossae on either side of base. Elytra elongate, flat above, anterior and posterior corners broadly rounded; sutural striae broadly impressed, extending three-fourths the length of elytra; humeri with deep, very short striae, and disc with a similar short and deep stria midway between the humeral and the sutural; anterior border bigibbous, one tubercle at base of each of the short striae. Propygidium broad and feebly convex. Pygidium with three very strong elongate costae, about half as long as the pygidium, the surface between these unevenly concave. Legs slender, moderately long; femora not arcuate; anterior tibiae with short tarsal grooves. Anterior tarsi noticeably shorter and stouter than the others.

From *Teratosoma*, known from a Brazilian species of both termitophilous and myrmecophilous habit, *Thaumataerius* differs in its very slender, elongate form, in the comparatively

simple structure of the prothorax, in the shorter and straight legs and in having the pygidium very strongly tricostate. The two genera resemble each other in the non-inflated legs and somewhat in the striation of the elytra, and though distinctly different genera, together constitute a radically aberrant group of the tribe Hetaerimorphini.

Genotype.—*Thaumataerius emersoni*, sp. nov.

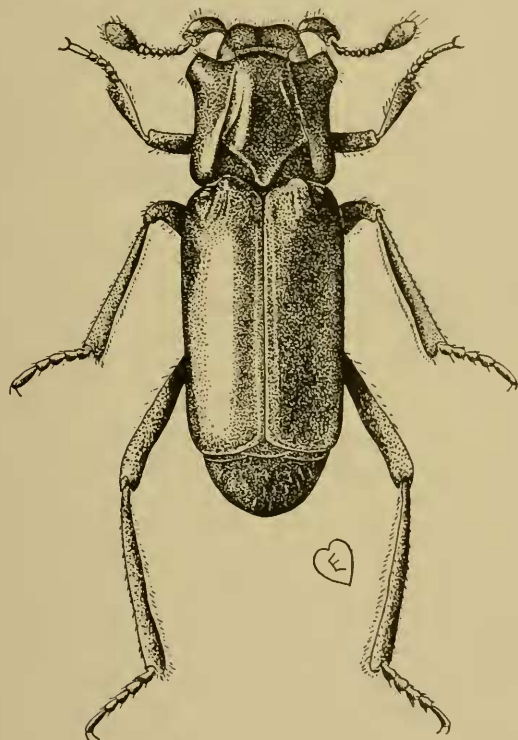


FIG. 40. *THAUMATAERIUS EMERSONI* SP. NOV.

Thaumataerius emersoni sp. nov.

(Figure 40)

Length.—2.10 mm.

Brownish red, shining; minutely punctate; body and appendages with moderately abundant, fine silky yellow hairs, which on the outer edge of the posterior and middle tibiae and shorter and denser and form a well defined brush.

Head longer than broad, not margined; vertex broad, rather strongly impressed. Eyes large, elongate, with very distinct facets. Prothorax as broad as long, slightly broadest behind, sides in front of middle feebly concave; anterior angles obliquely truncate, flattened and submargined at tip; posterior angles prolonged, with convex surface, convex outer border and narrowly rounded tip, separated from disc by strong oblique impressions which are deep basally and become shallow anteriorly; disc convex in front, shallowly concave at posterior half and separated from sides by a pair of oblique striae, one of which terminates in the lateral fossa and one of which extends to form an inner margin to the posterior angulate processes. Elytra together more than twice as long as broad, sides straight and parallel for three-fourths their length, feebly narrowed apically.

Host.—*Mirotermes* (*Mirotermes*) *nigritus* Silvestri

Locality.—Kartabo, British Guiana, July 31.